REMARKS

Applicants thank Examiner for acknowledging receipt of foreign priority document, Japanese Application No. JP2002-203439, that has been submitted pursuant to 35 U.S.C. § 119.

Applicants respectfully request reconsideration of Examiner's rejection of claims 1 - 4 under 35 U.S.C §103(a). In rejecting claim 1, Examiner states that *Shigeta et al.* (U.S. Patent No. 5,268,781) teaches Applicant's invention in Column 2 line 55 – Column 4 line 52. While *Shigeta* discloses a similar method of manufacture, it fails to recognize the criticality of the range of the thicknesses of the layers, and instead, actually teaches away from Applicant's currently disclosed invention.

More specifically, in Column 4 of the disclosure, *Shigeta* teaches to a layer thickness of 100 - 500 Å for the first layer, and 25 - 50 Å for the second layer. The ratio between the thickness of the second layer and that of the first layer is disclosed in theory to be anywhere from 5 - 50% via Column 4 lines 4 and 22; and in practice is disclosed to be anywhere from 5 - 25% via Table 1 in Column 5.

In contrast, Applicant's invention, however, realizes the advantages of obliquely depositing a second layer that is in the range of 0.25 - 1.25 % the thickness of the first layer. (See page 13 - 14, which discloses the use of a 40nm 1^{st} layer deposition, and a 0.1 - 0.5nm second layer deposition). Doing so achieves a desired result of inorganic alignment films that

Appl. No. 10/616,435

Amdt. Dated June 30, 2004

Reply to Office Action of March 30, 2004

prevent display defects at the time of voltage application, provide a quick response due to a

pre-tilt angle of 5 - 12°, and is superior in long-term reliability due to the use of inorganic

material that is resistant to light. The desired pre-tilt angle is, as disclosed on Page 14 of

Applicant's specification, a result of the critical ratio between the thickness of the first layer

and that of the second layer. As disclosed in the Background of the Invention, previous

silicon oxide deposition based liquid crystal valves have only been able to realize a pre-tilt

angle of either 0° or in the range of 20 - 30°.

Nothing in Shigeta teaches or suggests the critical range disclosed in Applicant's

invention, and the resultant benefits in pre-tilt angle and transmittance percentage achieved

by Applicant's new method and device structure. In fact, Shigeta actually teaches away from

Applicant's currently claimed invention.

Examiner's remaining references cited but not relied upon, considered either alone or

in combination, also fail to teach applicant's currently claimed invention. In light of the

foregoing, Applicants respectfully submit that all claims now stand in condition for

allowance.

Date: 6/30/04

Respectfully submitted,

Robert J. Depke

HOLLAND & KNIGHT LLC

#37,607)

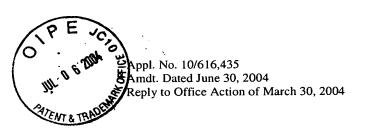
131 S. Dearborn, 30th Floor

Chicago, Illinois 60603

Tel: (312) 263-3600

Attorney for Applicant

page 6 of 7



CERTIFICATE OF MAILING

I hereby certify that this				
Postal Service as First Class Mai	1 on <u>6/30/</u>	of in an enve	elope addressed	i to:

Mail Stop Non-Fee Amendment Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

Attorney for Applicants